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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,916	03/26/2004	Toshihiro Kinoshita	50024-031	6747

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MCDERMOTT, WILL & EMERY
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Washington, DC 20005-3096

EXAMINER

KEANEY, ELIZABETH MARIE

ART UNIT	PAPER NUMBER
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2882

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/809,916

Applicant(s)

KINOSHITA, TOSHIHIRO

Examiner

Elizabeth Keaney

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/7/04.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3,4 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Hosokawa et al. (US Patent 6,280,861; hereinafter Hosokawa).

Re claims 1,3 and 4: Hosokawa discloses an organic electroluminescent device comprising:

- a hole injection electrode;
- a hole injection layer;
- a light emitting layer; and
- an electron injection electrode in this order (column 12, lines 61-62),
 - wherein the hole injection layer includes:
 - a first hole injection layer is made from an amine-based compound (column 15, line 24), and
 - a second hole injection layer is made from an amine-based compound (column 15, lines 33-36).

Re claims 10-14: Hosokawa discloses the first hole injection layer to have a thickness within the range of 5nm-15nm and a second hole injection layer to have a thickness in the range of 0.5nm-3nm (column 15, lines 57-59).

Claims 1-14 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamada et al. (US Patent 6,936,962; hereinafter Hamada).

Re claims 1 and 3-13: Hamada discloses, in figures 1 and 2 and throughout the disclosure, an organic electroluminescent device comprising:

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- a hole injection electrode (11);
- a hole injection layer (21);
- a light emitting layer (24); and
- an electron injection electrode (14) in this order,
 - wherein the hole injection layer includes:
 - a first hole injection layer comprising CuPC having a thickness of about 10 nm (column 6, lines 47-48), and
 - a second hole injection layer comprising CFx having a thickness of about 1nm (column 6, lines 50-51).

Re claim 2: The Examiner notes that the specification discloses CuPC to be the preferred material of the UV absorbing hole injection layer, therefore Hamada discloses the first hole injection layer absorbs not less than 10% of UV light having a wavelength shorter than 380.

Re claim 14: The Examiner notes that the method steps of claim 14 merely require the operation of the structure included within claims 1-13 and are therefore anticipated for the same reasons.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2 and 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hosokawa as applied to claim 1 above, and further in view of Hung (US Patent 6,208,077).

Re claims 2,3 and 9: Hosokawa teaches all the limitations as shown above, including the hole injection layer comprising various materials (column 15, lines 14-28).

However, Hosokawa fails to teach or fairly suggest the first hole injection material to be CuPC.

Hung teaches an OLED wherein the hole injection material is CuPC (column 6, line 31).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ CuPC for the first hole injection layer of Hosokawa because they are art recognized equivalents of the materials disclosed by Hosokawa. Therefore, the selection of CuPC over the materials of Hosokawa is considered an obvious design variation based on the availability and cost of the materials.

The Examiner notes that the specification discloses CuPC to be the preferred material of the UV absorbing hole injection layer, therefore Hamada discloses the first hole injection layer absorbs not less than 10% of UV light having a wavelength shorter than 380.

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Re claims 4-8: Hosokawa teaches all the limitations as shown above, including the hole injection layer comprising various materials (column 15, lines 14-28).

However, Hosokawa fails to teach or fairly suggest the second hole injection material to be CFx.

Hung teaches an OLED wherein the hole injection material is CFx (column 7, line 41).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to employ CFx for the second hole injection layer of Hosokawa because they are art recognized equivalents of the materials disclosed by Hosokawa. Therefore, the selection of CFx over the materials of Hosokawa is considered an obvious design variation based on the availability and cost of the materials.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Keaney whose telephone number is (571)272-2489. The examiner can normally be reached on Monday, Tuesday, Thursday, Friday 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on (571)272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Elizabeth Keaney
Examiner
Art Unit 2882



DAVID V. BRUCE
PRIMARY EXAMINER